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Unconventional hydrocarbon reservoir zones in hypabyssal complexes of the basement of the tatar arch

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Abstract

© SGEM2017. All Rights Reserved. Within the crystalline basement of the Tatar arch of the East-Russian plate, specific zones are distinguished, which can be attributed to unconventional reservoir zones. According to previous studies, different types of genesis are generated: decompressed zones of destruction of great depths, weathering crusts at the boundary of the sedimentary cover and crystalline basement, fractured permeable zones subjected to later hydrothermal processes, etc. Formation of different types of reservoir zones is associated with individual stages of geodynamic evolution of the basement. Unconventional zones are of great interest that associated with the hypabyssal complexes of the rocks of the South Tatar arch. Such zones are established within various territories in the world, for example, in the basins of Australia, California in the USA, on the southern side of the Suez graben, and the West Siberian oil and gas province. In the Volga-Ural oil and gas province, such zones are allocated within the Kamsko-Belsky, Sernovodsko-Abdullinsky and Kamsko-Kinel aulacogenes of the South Tatar arch. We outlined the section of crystalline rocks of the Pervomaysky area with a detailed description of potential reservoir zones and various types of superimposed processes that form a void space of rocks.

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Keywords

Basement, Gabbro-diabase formation, Hypabyssal rocks, Tatar arch, Unconventional reservoir

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